

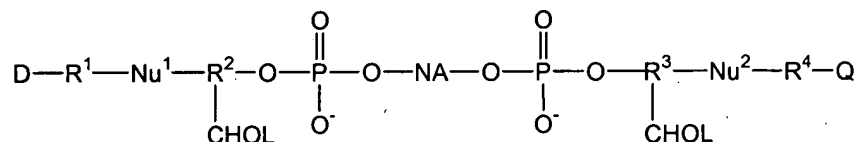
Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1-49. (Canceled)

50. (Previously presented) A probe nucleic acid having the formula:



wherein,

CHOL is a cholesterol derivative;

R^1 , R^2 , R^3 and R^4 are linker moieties independently selected from the group consisting of substituted or unsubstituted alkyl and substituted or unsubstituted heteroalkyl;

Nu^1 and Nu^2 are members independently selected from the group consisting of nucleotide residues and nucleoside residues;

NA is a nucleic acid sequence;

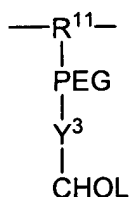
D is a donor of light energy; and

Q is a quencher of light energy,

wherein the CHOL moieties interact to bring D and Q into operative proximity, thereby enabling transfer of energy from D to Q, and

wherein said probe nucleic acid sequence is not hybridized to a target nucleic acid.

1 51. (Previously presented) The probe nucleic acid according to claim 50,
2 wherein R^2 -CHOL and R^3 -CHOL are independently selected and have structures according to
3 the formula:



4
5 wherein,

6 R^{11} is a member selected from the group consisting of substituted or unsubstituted
7 alkyl and substituted or unsubstituted heteroalkyl;

8 PEG is polyethylene glycol;

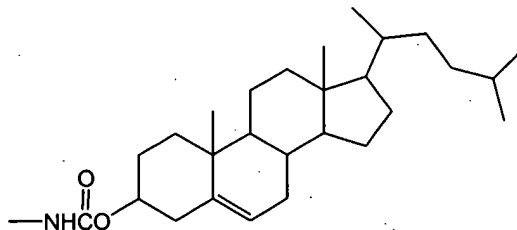
9 Y^3 is an organic functional group adjoining said PEG to said CHOL.

1 52. (Previously presented) The probe nucleic acid according to claim 51,
2 wherein said PEG has from about 2 to about 20 ethylene glycol subunits.

1 53. (Previously presented) The probe nucleic acid according to claim 51 in
2 which R^{11} is substituted or unsubstituted alkyl.

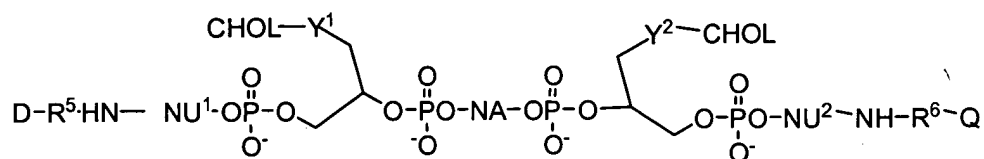
1 54. (Previously presented) The probe nucleic acid according to claim 53,
2 wherein R^{11} is C_1 - C_6 substituted or unsubstituted alkyl.

1 55. (Previously presented) The probe nucleic acid according to claim 51,
2 wherein Y^3 -CHOL has the structure:



1 56. (Previously presented) The probe nucleic acid according to claim 50,
2 wherein Nu¹ and Nu² are nucleotides having an exocyclic amine group to which -R¹-D and -R⁴Q
3 are attached, respectively.

1 57. (Previously presented) A probe nucleic acid having the formula:



3 wherein,

4 NA is a nucleic acid sequence;

5 Nu¹ and Nu² are members independently selected from the group consisting of
6 nucleotide residues and nucleoside residues;

7 Y¹ and Y² are linking groups independently selected from the group consisting of
8 substituted or unsubstituted alkyl and substituted or unsubstituted
9 heteroalkyl;

10 R⁵ and R⁶ are linking groups independently selected from the group consisting of
11 substituted or unsubstituted alkyl and substituted or unsubstituted
12 heteroalkyl;

13 D is a donor of light energy; and

14 Q is a quencher of light energy,

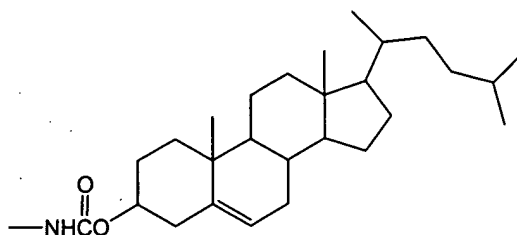
15 wherein each CHOL interacts with the other CHOL to bring D and Q into
16 operative proximity, thereby enabling transfer of energy from D to Q, and
17 wherein said probe nucleic acid sequence is not hybridized to a target nucleic
18 acid.

1 58. (Previously presented) The probe nucleic acid according to claim 57,
2 wherein Y¹ and Y² are members independently selected from substituted or unsubstituted
3 heteroalkyl.

1 59. (Previously presented) The probe nucleic acid according to claim 58,
2 wherein Y¹ and Y² are polyethylene glycol.

60. (Previously presented) The probe nucleic acid according to claim 59,
wherein said polyethylene glycol has from about 2 to about 20 ethylene glycol subunits.

1 61. (Previously presented) The probe nucleic acid according to claim 57,
2 wherein Y¹-CHOL and Y²-CHOL have the structure:



1 62. (Canceled)